

Title (en)
METHOD FOR CONTROLLING A HYBRID DRIVELINE IN ORDER TO ACHIEVE GEAR CHANGE WITHOUT INTERRUPTION OF TORQUE

Title (de)
VERFAHREN ZUR STEUERUNG EINES HYBRIDEN ANTRIEBSSTRANGS ZUR ERREICHUNG EINES GANGWECHSELS OHNE
UNTERBRECHUNG DES DREHMOMENTS

Title (fr)
PROCÉDÉ DE COMMANDE D'UNE LIGNE DE TRANSMISSION HYBRIDE PERMETTANT D'OBTENIR UN CHANGEMENT DE RAPPORT SANS
INTERRUPTION DE COUPLE

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Application
EP 15765393 A 20150317

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Abstract (en)
[origin: WO2015142252A1] The present invention relates to a method to control a hybrid powertrain (3) to achieve gear shifts without torque interruption, comprising a gearbox (2) with an input shaft (8) and an output shaft (20); a first planetary gear (10), connected to the input shaft (8) and a first main shaft (34); a second planetary gear (12), connected to the first planetary gear (10) and a second main shaft (36); a first electrical machine (14), connected to the first planetary gear (10); a second electrical machine (16,) connected to the second planetary gear (12); a first gear pair (60) and a third gear pair (72), arranged between the first main shaft (34) and a countershaft (18); and a second gear pair (66), arranged between the second main shaft (36) and the countershaft (18), wherein the countershaft (18) is connected with the output shaft (20) via a fifth gear pair (21), wherein a combustion engine (4), via the input shaft (8), is connected with a first planetary wheel carrier (50), arranged in the first planetary gear (10), and wherein the second main shaft (36) is connected with a second planetary wheel carrier (51), arranged in the second planetary gear (12). The method comprises the steps: a) disconnecting the first gear pair (60); b) connecting the first planetary gear (10) with the output shaft (20) via a coupling mechanism (96), which connects the first main shaft (34) and the output shaft (20); c) disconnecting the fifth gear pair (21); d) transferring a torque generated by the combustion engine (4) from the second planetary gear (12) to the countershaft (18) via the second gear pair (66); and e) transferring a torque from the countershaft (18) to the output shaft (20) via the third gear pair (72). The invention also relates to a computer program (P) to control a hybrid powertrain (3) and a computer program product comprising program code for an electronic control device (48) or another computer (53) to implement the method according to the invention.

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CPC (source: EP KR RU SE US)
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